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| APPLICATION NO.      | FI                    | LING DATE  | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-----------------------|------------|-------------------------|---------------------|------------------|
| 10/814,138           | 10/814,138 04/01/2004 |            | Dominique Guesnet       | 119273 8467         |                  |
| 25944                | 7590                  | 10/02/2006 |                         | EXAMINER            |                  |
| OLIFF & B            |                       | SE, PLC    | CLEMENT, MICHELLE RENEE |                     |                  |
| ALEXANDRIA, VA 22320 |                       |            |                         | ART UNIT            | PAPER NUMBER     |
|                      | •                     |            |                         | 3641                |                  |

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Common to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                           | Application No.                                                                 | Applicant(s)   |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                           | 10/814,138                                                                      | GUESNET ET AL. |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Office Action Summary                                                                                                                                                                                                                     | Examiner                                                                        | Art Unit       |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                           | Michelle (Shelley) Clement                                                      | 3641           |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| 1)⊠                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | )⊠ Responsive to communication(s) filed on <u>20 July 2006</u> .                                                                                                                                                                          |                                                                                 |                |  |  |  |  |
| ,—                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.                                                                                                                                                                              |                                                                                 |                |  |  |  |  |
| 3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is                                                                                                                           |                                                                                 |                |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| Disposition of Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| 5)□<br>6)⊠<br>7)□                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Claim(s) 1-9 is/are pending in the application.  4a) Of the above claim(s) 7 and 9 is/are withdra Claim(s) is/are allowed.  Claim(s) 1-6 and 8 is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or |                                                                                 |                |  |  |  |  |
| Application Papers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| 9)☑ The specification is objected to by the Examiner.  10)☑ The drawing(s) filed on <u>01 April 2004</u> is/are: a)☐ accepted or b)☑ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| Priority under 35 U.S.C. § 119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                           |                                                                                 |                |  |  |  |  |
| Attachme                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | nt(s)                                                                                                                                                                                                                                     |                                                                                 |                |  |  |  |  |
| 2)  Noti<br>3)  Info                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ice of References Cited (PTO-892) ice of Draftsperson's Patent Drawing Review (PTO-948) rmation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date                                                                                    | 4) Interview Summar<br>Paper No(s)/Mail D<br>5) Notice of Informal<br>6) Other: | Date           |  |  |  |  |

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#### **DETAILED ACTION**

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#### Election/Restrictions

1. Applicant's election with traverse of species b in the reply filed on 7/20/06 is acknowledged. The traversal is on the ground(s) that the examiner has not fulfilled the requirement as set forth in MPEP 803. This is not found persuasive because applicant's argument that the examiner must show serious burden as set forth in MPEP 803 is inappropriate for a species restriction. MPEP 802.02 defines three separate types of restriction requirements; distinct inventions, independent inventions, and election of species. The requirements for demonstrating a distinct or independent invention are not required for an election of species. The requirements for making an election of species are found in MPEP 808.01(a) and 809.02(a).

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The requirement is still deemed proper and is therefore made FINAL.

2. Claims 7 and 9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species there being no allowable generic or linking claim.

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### **Drawings**

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3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 31 and 36.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 26 and 28. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

# Specification

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not provide antecedent basis for all the terms used in the claims; applicant should take care to use the same terms for the elements in the claims as in the specification in order to avoid confusion. For instance, applicant's claim 1 states the element "a double-acting cylinder comprising two chamber separated by a piston", applicant's specification has not specified any of the stated cylinders as a "double-acting" cylinder but has

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disclosed several cylinders comprising two chambers separated by a piston. It is not clear which cylinder of the disclosure applicant considers the claimed "double-acting" cylinder.

# Claim Objections

6. Claims 1-6 and 9 are objected to because of the following informalities: the claims include elements stated in terms that are not disclosed in the specification and it is not clear what elements from the disclosure applicant considers to correspond to the claimed elements. In claim 1 it is not clear if the applicant is merely claiming that the "energy recuperating cylinder" is a "double-acting cylinder" of if the applicant is claiming two separate cylinders. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Appropriate correction is required.

## Claim Rejections - 35 USC § 112

- 7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 8. Claims 1-6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 9. Claim 1 recites the limitation "said cylinder" in line 6. There is insufficient antecedent basis for this limitation in the claim since applicant has claimed both a "energy recuperating cylinder" and a "double-acting cylinder", it is not clear which cylinder applicant is referring to by the term "said cylinder".

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10. Claim 8 recites the limitations "said nitrogen chamber side" and "said nitrogen". There is insufficient antecedent basis for these limitations in the claim.

#### Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 12. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Northup et al. (US Patent # 4,296,670). Northup appears to discloses the claimed device to recuperate the energy produced during the recoiling of a weapon provided with a hydraulic fluid power circuit. wherein the device comprises an energy recuperating cylinder activated by the recoil of the weapon, a double-acting cylinder comprising two chambers separated by a piston, a first chamber connected to the hydraulic power circuit of the weapon, the piston pushing the hydraulic fluid in the circuit into a storage accumulator when the weapon recoils. The energy recuperating cylinder comprises a second chamber connected to a recoil mechanism that ensures pressurizing of the mechanism. The recuperating cylinder incorporates a rod integral with the piston, the rod is pushed by the weapon during its counter recoil. The energy recuperating cylinder is connected to the weapon's hydraulic power circuit by a main piping divided into two secondary pippins provided with first and second valves allowing the passage of a fluid in one direction only, of the secondary pippins connecting the main piping to the storage accumulator and the other of the secondary piping connecting the main piping to a supercharging accumulator. The first valve is placed between the supercharging accumulator and the main

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piping and the second valve is placed between the main piping and the storage accumulator, the first valve being closed and the second valve open when the weapon recoils. The storage accumulator supplies the weapon's hydraulic circuit with pressurized fluid via a service piping.

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# Claim Rejections - 35 USC § 103

- 13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Northup et al. as applied to claims 1-6 above, and further in view of Boissiere et al. (US Patent # 6,536,324).

  Although Northup et al does not expressly disclose the device wherein the second chamber of the recoil mechanism is a nitrogen chamber, Boissiere et al. does. Boissiere et al. teaches an antirecoil device for diminishing the recoil of a large weapon, the recoil mechanism comprising a cylinder comprising two chambers wherein one chamber comprises liquid and the other chamber comprises gas (generally nitrogen) in order as a braking mechanism for the weapon. Boissiere et al. and Northup et al. are analogous art because they are from the same field of endeavor: gun hydraulics. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dual chamber braking cylinder comprising nitrogen as suggested by Boissiere et al. with the device as suggested by Northup et al. The suggestion/motivation for doing so would have been to obtain a large caliber weapon that had lower recoil as suggested by Boissiere et al.

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#### Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Girouard et al. (US Patent # 3,146,672 & # 3,144,809), Carrie (US Patent # 4,046,056), Burmeister et al. (US Patent # 5,042,360), Gorst (US Patent # 5,495,788), and Vickers (US Patent # 2,410,116).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MICHELLE CLEMENT
PRIMARY EXAMINE

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